

UTILITY PATENT APPLICATION FOR MAGNETIC THERAPY BELT

RELATED APPLICATION

This application is a Continuation of Provisional Patent Application Serial No. 60/258,531 filed December 20, 2000, having the same title, and currently co-pending.

FIELD OF THE INVENTION

The present invention relates generally to clothing worn by humans. More particularly, the present invention relates to clothing used by humans for therapeutic reasons. Even more particularly, the present invention relates to clothing having magnetic structure that is worn around a person's waist for therapeutic reasons.

BACKGROUND OF THE INVENTION

Magnetic therapy is a practice that utilizes specific points on the human body known as pressure points. These pressure points are special points on the body which are susceptible to changes in the environment surrounding the points. An old Chinese practice of puncturing the pressure points with needles is recognized by many to relieve pain, sickness, or disease. Magnetic therapy works in a similar way, but instead of puncturing the pressure points with a needle, magnetic therapy creates a magnetic field around and through the pressure points. The magnetic field created by the magnets are low-leveled, so the body is not harmed by the

magnetic field. The magnetic field is believed to assist in restoring a correct balance of electrical charge to stressed cells in and around the pressure points.

Magnetic products have been developed to aid in healing cells in specific areas of the bodies. For example, magnetic hand-held balls are common in Chinese and other Asian stores which relieve built-up stress in the hands. Magnetic trinkets which dangle from various sized necklaces are believed to strengthen the heart and chest area, and to provide other therapeutic effects. These products, however, are not fashionable, are difficult to keep on, and are often uncomfortable because they irritate the skin where the cloth touches due to the constant shifting of the fabric. Also, these products are not useful for providing magnetic therapy to the lower abdomen and lumbar portion of the back.

Therefore, a need exists for a specialized product with the magnetic structure which can be easily worn around the waist and creates a magnetic field in the lower abdomen and back regions. This product must also be easy to put on a person, must be comfortable, and relatively fashionable for patients to wear.

SUMMARY OF THE INVENTION

In accordance with the present invention, a Magnetic Therapy Belt is provided and includes an article of apparel resembling a belt and includes an array of magnetic elements, a buckle, and strips of material that compose the structure of the belt. The magnetic elements may be held in place inside the belt by an adhesive, and may be further retained in place by providing a band within the belt

having circular apertures for receiving the magnetic elements. The magnetic elements are placed at intervals along a portion of, or the entire, length of the belt, and particularly adjacent the lower back, or lumbar, area. The magnets are oriented within the belt to provide a substantially unipolar magnetic field to the body of the person wearing the belt. The belt may be constructed of fabric commonly used for belts, such as leather.

The Magnetic Therapy Belt as described above will overcome the disadvantages of currently available magnetic therapy products. For example, the Magnetic Therapy Belt of the present invention allows for a comfortable, fashionable, and efficient magnetic therapy treatment just by wearing a belt.

DESCRIPTION OF THE DRAWINGS

The novel features of this invention, as well as the invention itself, both as to its structure and its operation, will be best understood from the accompanying drawings, taken in conjunction with the accompanying description, in which similar reference characters refer to similar parts, and in which:

Figure 1 is a perspective view of the Magnetic Therapy Belt of the present invention showing the placement of an array of magnetic elements along the portion of the belt which would be positioned adjacent the lower back region of a person wearing the device;

Figure 2 is a top view of the Magnetic Therapy Belt of the present invention showing the relative placement of the array of magnetic elements within the belt

and the location and attachment of the belt buckle to the device;

Figure 3 is a cross-sectional view of the Magnetic Therapy Belt of the present invention taken along line 3-3 in Figure 1, and showing the placement and retention of a magnetic element within the internal structure of the belt; and

Figure 4 is a side view of the Magnetic Therapy Belt of the present invention with portions of the belt material removed for clarity, and showing the relative placement of the magnetic elements within the belt, the magnetic element-receiving aperture formed in the surrounding material of the present invention.

DETAILED DESCRIPTION

Referring initially to Figure 1, the Magnetic Therapy Belt of the present invention is shown as it is typically worn around the waist of a patient (not shown) and is generally designated 100. Magnet Therapy Belt 100 includes a belt body 102 containing an array of magnetic elements 104, and having a first end 106 and a second end 108. First end 106 is formed with a loop 110 that is held in place with rivet 112 to capture buckle 114 in place. Second end 108 is formed with an array of through holes for receiving the tab portion 118 of buckle 114 for adjusting the length of the Magnet Therapy Belt 100 for comfortable positioning of the device on the person receiving the magnetic therapy.

From Figure 1, it can be appreciated that the magnetic elements 104 (shown in dashed lines) are strategically located within the portion of the belt which would be positioned adjacent the backside of the patient to give maximum treatment to

the lower, or lumbar, region of the back. It should be understood, however, that while the Magnet Therapy Belt 100 of the present invention is shown to have magnetic elements positioned only along a portion of the length of the belt, the magnetic elements may be positioned along the entire length of the belt, or any portion of the belt, without departing from the spirit of the present invention.

Referring now to Figure 2, a top view of the Magnetic Therapy Belt 100 of the present invention is shown and details the relative placement of the array of magnetic elements 104 within the belt 102 and the location and attachment of the belt buckle 114 to the device. Magnetic elements 104 (shown in dashed lines) are shown having a thickness 120 and a diameter 122 and separated by a distance 124. In a preferred embodiment, the thickness 120 is three millimeters (3 mm), diameter 122 is one centimeter (1 cm), and separation distance 124 is one centimeter (1 cm). Magnetic elements 104, in a preferred embodiment, are high gauss neodymium magnets which exhibit magnetic fields in excess of 35,000 gauss adjacent the magnet 104.

Referring now to Figure 3, a cross-section of the Magnetic Therapy Belt 100 of the present invention is shown and details the placement of the magnetic elements 104 between the layers of the belt 102. More specifically, belt 102 includes a pair of outer coverings 130 and 132, and a pair of inner layers 134 and 136. These outer coverings 130 and 132 are attached to inner layers 134 and 136 with an adhesive 137. A foam insert 138 may be positioned between the inner

layer 134 and 136 and may be formed with a circular aperture 142 for receiving the magnetic element 104. The outer coverings 130 and 132, and inner layers 134 and 136 are sewn together with threads 140 to capture magnetic element 104 within aperture 142.

5 Foam insert 138 is of a particular importance in Magnetic Therapy Belt 100 as the placement of magnetic elements 104 within belt 102 is difficult due to the high magnetic attraction between the magnetic elements 104. Without the placement of the magnetic elements within aperture 142 of the foam insert 138, the magnetic elements would otherwise move during the manufacturing process, resulting in a belt having irregularly spaced magnetic elements.

10 In a preferred embodiment, foam insert 138 may be composed of foam or other polymeric materials, leather, vinyl or other material that maintains its shape when pressure is applied and is known in the art. Stitching 108 may be any material used for textile stitching as used in the art. In a preferred embodiment, outer coverings 130 and 132, and inner layer 134 and 136 may be made of any material known in the art, and preferably leather.

15 Referring now to Figure 4, a side view of the Magnetic Therapy Belt 100 is shown with portions removed for clarity. Specifically, portions of the outer covering 130 and inner layer 134 have been removed to show the placement of the magnetic element 104 within the circular aperture 142 of foam insert 138. As shown, each of the magnetic elements 104 are oriented such that the side of the

magnetic element having a negative polarity is positioned adjacent the person, thus providing the wearer of the Magnetic Therapy Belt 100 with a negative magnetic field for the magnetic therapy treatment. Research has shown that magnetic therapy treatments incorporating exposure of the patient to a negative magnetic field provides superior results from the therapy.

As a result of the positioning of the magnetic elements 104 along the length of belt 102, and the consistent orientation of the negative side of the magnetic element 104 against the wearer of the Magnetic Therapy Belt 100, the strength of the magnetic fields which are created by the magnetic elements 104 is substantially uni-polar and continuous along the portion of the belt 104 containing magnetic elements 104. More specifically, because the magnetic elements 104 are high strength neodymium magnets, and they are all similarly positioned with the negative side against the wearer, the wearer experiences virtually no positive magnetic field from the Magnetic Therapy Belt 100. This is particularly advantageous in providing a magnetic therapy treatment which is most effective.

In a preferred embodiment, (21) twenty-one magnetic elements 104 may be used to spread the magnetic therapy laterally along the lower back region. With a separation distance of one millimeter (1mm), the magnetic field experienced by the wearer is negative in polarity, and extends about the wearer's entire lumbar region. It should be appreciated, however, that the polarity of the magnetic elements may be reversed, exposing the wearer to a positive magnetic field during the magnetic

therapy treatment. Further, the strength of the magnetic elements 104, as well as the spacing between the magnetic elements 104, may vary to provide a different magnetic field strength for the magnetic therapy treatment.

In addition to the placement of the magnetic elements 104 along a length of the belt 102 for treatment of the lower back region of the patient, the belt 104 may also be worn with the buckle 114 positioned differently. For instance, should one side of a patient require a magnetic therapy treatment, the Magnetic Therapy Belt 100 may be positioned such that the magnetic elements 104 are positioned adjacent the kidney area of the patient's body. In this manner, a magnetic therapy treatment may be given to any portion of a patient's body by selectively positioning the magnetic elements 104 within the Magnetic Therapy Belt 100 in the appropriate location.

While there have been shown what are presently considered to be preferred embodiments of the present invention, it will be apparent to those skilled in the art that various changes and modifications can be made herein without departing from the scope and spirit of the invention.